

**ARTIFICIAL CPG SINGLE-STRANDED OLIGODEOXYNUCLEOTIDE AND  
ANTIVIRAL USE THEREOF**

**Abstract of the Invention**

The present invention provides a series of artificial CpG-containing single-stranded oligodeoxynucleotides (ODNs), each of which is consisted of single-stranded oligodeoxynucleotide DNA molecule containing one or more CpG(s), wherein said ODNs can stimulate human peripheral blood mononuclear cell (PBMC) to produce antiviral substances. These ODNs can protect the cells against the attack from virus, wherein said virus is preferably selected from the group consisted of influenza virus and single-stranded positive strand RNA virus such as SARS virus, hepatitis C virus, dengue virus and Japanese encephalitis virus. Moreover, the antiviral use of artificial CpG ODNs and its use for treating and preventing viral infection are also provided.